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WALKER & SAKO,LLP  
300 SOUTH FIRST STREET  
SUITE 235  
SAN JOSE, CA 95113

EXAMINER

TSEGAYE, SABA

ART UNIT PAPER NUMBER

2662

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/519,605

Applicant(s)

SUN, PETER C P

Examiner

Saba Tsegaye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/28/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. This Office Action is in response to the amendment filed 05/24/05. Claims 1-14 and 16 are pending. Currently no claims are in condition for allowance.

***Claim Rejections - 35 USC § 103***

2. Claims 1-12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baratz et al. (US 5,742,596) hereafter Baratz in view of Berger et al. (US 6,196,846) hereafter Berger.

Referring to claim 1, Baratz discloses a voice and data network (a voice and data network (see figure 1)), comprising:

- a) a telephone and a computer connected to a voice and data module (VDMI (each host computer has a voice and data module with a computer and phone connected thereto (Note, the MC and TCM cards of the host computer, as a whole, are being considered a voice and data module since the NIC is used for data communication by the host computer and the TCM is used by the telephone for voice communication and they also communicate between each other) (see items 42 and 43 of figure 1))),
- b) a plurality of said VDM devices connected to a plurality of telephone wires in a building (a plurality of voice and data modules is connected through wires of a network (see figure 1)),
- c) said plurality of telephone wires connected together to provide a telephone network in

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which only one phone can communicate on a given line at a time in ordinary telephone service (the connected wires comprise a network and specifically there is a wire attaching the phone 42 to the TCM 174 wherein only one that phone 42 can communicate on at one time, also the wire is a part of a standard telephone interface (see figure 1 and claim 5),

d) a link to wide area network (LTWI connects said telephone network to a Public Service Telephone Network (PSTN) and an Internet Service Provider (ISP) (a telephony server connects the network to the PSTN and Internet (see figure 1)),

e) said LTW and said plurality of said VDM devices communicate together over said telephone network using communication addresses assigned to said LTW and each VDM of said plurality of VDM devices (the voice and data modules and the telephony server communicate using their assigned addresses (see figure 1 and column 6 lines 16-38)). Further, Baratz discloses that physical extension numbers are directly related to the unique network address of the host computer 40 that telephone set 42 is connected to.

Baratz does not disclose the telephone and computer having unique assigned network addresses with respect to one another.

Berger teaches, in Fig. 1, a customer workstation 12 includes a communication interface 28 (that is connected to a computer 22 and a telephone 32) to communicate with data network 16 and voice network 18. Further, Figs. 4b-d illustrate user and agent information tables 128, 130, 134, 132 that includes **telephone extensions 168** and **network address 76** of customer workstations 12 (**unique assigned network addresses for the telephone and computer**) (column 9, line 57-column 10, line 14; column 11, line 7-column 12 line 23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings from Berger of using a unique address to the computer and telephone of Baratz. The motivation is that a unique address would identify the computer and the telephone with the internal network that enables the centrally accessed unit to implement specific call-related features and provides the telephony devices to implement the same features so that there is a redundant capability.

Referring to claim 2, Baratz discloses all the claim limitations as stated above. Baratz does not disclose wherein each of the plurality of VDM includes at least a first connection for a telephone and a second connection for a personal computer.

Berger teaches that the communication interface 28 is placed between the telephone communication equipment ((with extension number) a **first connection**) and a computer ((network address) a **second connection**) (column 3, lines 28-40).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to add a system that includes a first connection for a telephone and a second connection for a personal computer, such as that suggested by Berger, to the system of Baratz. One of ordinary skill in the art would have been motivated to do this because a unique address would identify the computer and the telephone with the internal network and providing distributed call-processing capability without unnecessarily sacrificing system performance under certain operating conditions.

Referring to claim 3, Baratz discloses the system discussed above. Furthermore, Baratz

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discloses that said LTW and said plurality of VDM devices communicate over said network of telephone wires by means of Token in Ethernet Protocol technology (the voice and data modules communicate with the telephony server using the Ethernet protocol (see column 4 lines 30-34).

Referring to claim 4, Baratz discloses the system discussed above. Furthermore, Baratz discloses that telephone service is provided to the building from said ISP and said PSTN (the telephones are coupled such that they receive service from the PSTN and the internet (see figure 1)).

Referring to claim 5, Baratz discloses all the claim limitations as stated above. Baratz does not expressly disclose that each VDM device is connected to the telephone wires by an ordinary phone jack.

Berger teaches that the workstation 12 includes a communication interface 28 such as the appropriate hardware (e.g., one or more modems, terminals adapters, or network interface cards) to communicate with data network 16 and voice network 18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an ordinary phone jack to connect each VDM device to the telephone wire in Baratz, as thought by Berger. One of ordinary skill in the art would have been motivated to do this because would provide many benefits such as easily plugging and unplugging the VDM, thereby providing flexibility in the Baratz network.

Referring to claim 6, Baratz discloses a method for communicating between network elements in a voice and data network, comprising:

a) monitoring a communication network by a first voice and data module (VDM for a call from a second VDM and a call from a link to a wide area network (LTWI connected to said communication network (each voice and data module checks for incoming signals that may come from either other voice and data modules on the local Ethernet or from outside the local Ethernet by-way-of the telephony server (see figure 1 and columns 5 and 6),

b) monitoring a first phone and a first computer attached to said first VDM for an outgoing call to a destination containing a second phone and a second computer connected to said second VDM (the voice and data modules inherently check for signals from the telephone and/or computer that are attached to it for any outgoing calls that may be destined for another voice and data module on the network (see figure 1 and columns 5 and 6)), or an outside phone and an outside computer network through said LTW (the voice and data modules also inherently check for any incoming calls it might receive from outside the local network by-way-of the telephony server (see figure 1 and columns 5 and 6)),

Baratz does not explicitly disclose the steps of connecting an outgoing call if the destination is not busy else providing a busy signal to the source and disconnecting the outgoing call, or connecting an incoming call only if the voice and data modules are not busy else sending back a busy signal and disconnecting the incoming call or disconnecting the calls when they are complete, all of which is specified in steps c-e. However, these steps are typically performed in conventional and ordinary communications systems where calls are set-up, torn down and busy signaling operations are performed, as in that of Baratz. Baratz discloses that calls are set-up through the use of typical DTMF tones and thus also torn down (see column 4 lines 46-48, column 5 lines 63-67 and column 9 lines 18-25). Furthermore, Baratz discloses that the system

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uses busy signals and checks the status of nodes that are trying to be contacted (see column 6 lines 39-47 and column 7 lines 56-59)). Lastly, Baratz also points out that the telephones of the system are ordinary sets that use DTMF signaling (see column 4 lines 46-48) and that the client related features of the system are the same as those typically found in conventional PBX equipment (see abstract). In light of the above disclosure and the fact that the call connecting, disconnecting and busy signaling procedures, as recited in the claim, are those typically performed, it would have been obvious to one skilled in the art at the time of the invention to include these steps in the system of Baratz.

Further, Baratz does not disclose the telephone and computer having unique assigned network addresses with respect to one another.

Berger teaches, in Fig. 1, a costumer workstation 12 includes a communication interface 28 (that is connected to a computer 22 and a telephone 32) to communicate with data network 16 and voice network 18. Further, Figs. 4b-d illustrate user and agent information tables 128, 130, 134, 132 that includes **telephone extensions 168** and **network address 76** of customer workstations 12 (**unique assigned network addresses for the telephone and computer**) (column 9, line 57-column 10, line 14; column 11, line 7-column 12 line 23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings from Berger of using a unique address to the computer and telephone of Baratz. The motivation is that a unique address would identify the computer and the telephone with the internal network that enables the centrally accessed unit to implement specific call-related features and provides the telephony devices to implement the same features so that there is a redundant capability.



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Referring to claim 7, Baratz the system discussed above. Furthermore, Baratz discloses that the connecting the call further includes, if the outgoing call is not an outside call sending a request for connection packet addressed to the second VDM and not the LTW (see column 4 lines 30-34; lines 56-64).

Referring to claim 8, Baratz the system discussed above. Furthermore, Baratz discloses that communication between computers is done directly in Ethernet protocol eliminating the need for any conversion (**the host computers on the network communicate using Ethernet packets** (see figure 1 and column 4, lines 30-34 and columns 5 and 6)).

Referring to claim 9, Baratz the system discussed above. Furthermore, Baratz discloses connecting a long distance phone call is done through said ISP without the use of a computer to assist in the call (telephones can be directly coupled to the telephony server in order to make call over the PSTN and therefore no host computer is needed (see figure 1 and column 5).

Referring to claim 10, Baratz discloses the system discussed above. Furthermore, Baratz discloses detecting a request from said first computer for a connection to an Internet service provider (ISP) (**the voice and data module receives a request from a host computer to connect to the Internet** (see figure 1 and column 6)), sending request for the connection to said LTW (**the voice and data module receives the request from the host computer** (see figure 1 and column 6)) and completing connection to said ISP is completed when the LTW responds with a connection completed signal (**inherently the voice and data module lets the host**

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**computer know that it is connected to the Internet so that communication can take place**  
(see figure 1 and column 6)).

Referring to claim 11, Baratz discloses the system discussed above. Furthermore, Baratz discloses that the voice and data network is organized into at least two VDM locations (**each host computer has a voice and data module with a computer and phone connected thereto**), each VDM location including a VDM device having a first network address, a first connection for a device that is assigned a second network address, and a second connection for a device that is assigned a third network address, the first second and third network addresses being different for one another (**the devices in the network communicate using the Ethernet protocol and thus have unique addresses since Ethernet requires it; the physical extension numbers are directly related to the unique network address of the host computer 40 that telephone set 42 is connected to**) (see also column 4, lines 61-64).

Referring to claim 12, Baratz discloses all the claim limitations as stated above. Baratz does not disclose that each VDM device is connected to a telephone by the first connection and connected to a computer by the second connection.

Berger teaches that the communication interface 28 is placed between the telephone communication equipment ((with extension number) a **first connection**) and a computer ((network address) a **second connection**) (column 3, lines 28-40).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to add a system that includes a first connection for a telephone and a

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second connection for a personal computer, such as that suggested by Berger, to the system of Baratz.

One of ordinary skill in the art would have been motivated to do this because a unique address would identify the computer and the telephone with the internal network and providing distributed call-processing capability without unnecessarily sacrificing system performance under certain operating conditions.

Referring to claim 14, Baratz discloses the system discussed above. Furthermore, Baratz discloses sending a packet with a no line available indication from the LTW if an outside line connected to the LTW is not available (the telephony server generates busy signals and sends the signals in Ethernet frames to the telephone attempting to make a call to indicate the line is unavailable (see column 6 lines 38-47)).

Referring to claim 16, Baratz discloses the system discussed above. Furthermore, Baratz discloses the telephony server requesting an outside call to extension data for an incoming call **(inherently, any calls from the outside going to a particular phone must have a phone number and/or extension associated with it so that the telephony server can properly route the call** (see figure 1)). Baratz does not disclose that if an extension is not received using a predetermined the port address as the destination. However, it would have been obvious to one skilled in the art at the time of the invention to implement this feature in Baratz because doing so will allow the call to still take place rather than dropping the call because the extension is

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unknown, thus making Baratz more reliable. Note: this becomes even more important for emergency calls made in the Baratz system.

3. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baratz in view of Berger as applied to claim 16 above, and further in view of Angle et al. (USPN 6,366,771), hereafter referred to as Angle.

Baratz in view of Berger discloses the system discussed above. Furthermore, Baratz discloses that the telephony server processes calls using a queue (see figure 5) and setting up and tearing down calls using the telephony server (column 5, line 63-column 6, line 6), wherein inherently signals indicating call set-up and tear-down must be communicated between the telephony clients and the telephony server (see figure 1). Baratz in view of Berger does not disclose using “hang-up” packets for processing the calls of the system.

Angle discloses a system wherein hang-up packets are communicated within a system to indicate the termination of a call (see column 12 lines 1-38).

It would have been obvious to one skilled in the art at the time of the invention to implement this feature in the Baratz in view of Berger system because doing so would tell the telephony server that the call is completed and so the telephony server can free up resources related to that call and use those resources for other calls.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-14 and 16 have been considered but are moot in view of the new ground(s) of rejection.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST  
September 5, 2005

  
**JOHN PEZZLO**  
**PRIMARY EXAMINER**